IN THE UNITED STATES PATENT AND TRADEMARK OFFICE
BEFORE THE BOARD OF PATENT APPEALS AND INTERFERENCES

First Named Inventor :	William M. Radich	Appeal No. ---
Appln. No. :	10/607,967	
Filed :	June 27, 2003	Group Art Unit: 2112
For :	COMPUTATION OF BRANCH METRIC VALUES IN A DATA DETECTOR	Examiner: Mujtaba M. Chaudry
Docket No.:	S104.12-0037/STL 11305	

REPLY BRIEF

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Mail Stop Appeal Brief-Patents
Commissioner for Patents
P.O. Box 1450
Alexandria, VA 22313-1450

Sir:

This is in response to the Examiner's Answer dated October 16, 2007.

In section 10 (Response to Argument section) of the Answer, the Examiner, in general, suggests that transition jitter is present in channel noise and therefore, because Kavcic utilizes general noise statistics for the computation of branch metric values, the branch metric values computed in Kavcic are based on transition jitter.

Appellant respectfully asserts that it does not follow logically that, by utilizing general noise statistics, a detector can compute branch metric values based on transition jitter statistics.

Data detectors utilize probabilistic models of channel noise that are the basis upon which they compute branch metric values. Different statistical noise models yield distinctly different branch metric calculations/associated detectors. Kavcic's detector is not based on any underlying model for transition jitter. It utilizes a Gauss-Markov approximation of channel noise. According to this model, the channel noise sample at a given time is represented as the sum of a white noise component and the linear combination of previous samples. Accordingly, FIG. 3 of Kavcic, which is included on page 11 of the Examiner's Answer, shows a sampled waveform in the amplitude domain. The fact that a transition looks like a signal amplitude variation in the

amplitude domain does not mean that, without utilizing an *a priori* model class for transition jitter, branch metric values based on transition jitter statistics can be calculated. The Examiner's Answer appears to be assuming that Kavcic's detector somehow, independently of the probabilistic model of channel noise that it is based on, computes branch metric values based on transition jitter statistics. This assumption is incorrect.

In summary, Kavcic's detector does not utilize a transition jitter noise model that would enable it to compute branch metric values based on transition jitter statistics and, in general, Kavcic includes nothing about transition jitter statistics. Therefore, claim 1-20 are not anticipated by Kavcic.

In view of the foregoing, Appellant respectfully requests that the Board reverse the Examiner and find all pending claims allowable.

Respectfully submitted,

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